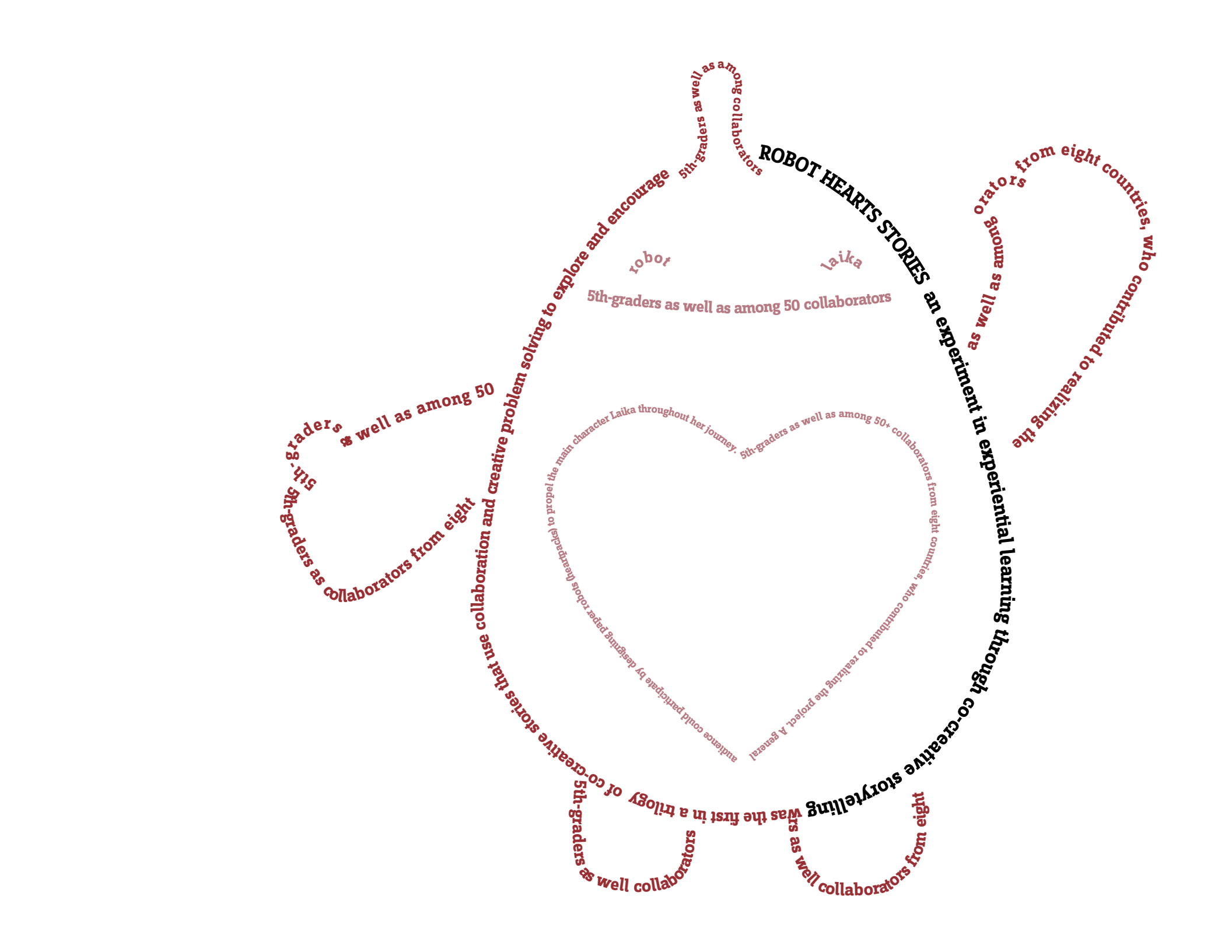
ROBOT HEARTS STORIES an experiment in experiential learning through co-creative storytelling
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robot
laika
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5th-graders as well as among 50+ collaborators from eight countries, who contributed to realizing the project. A general
audience could participate by designing paper robots (earpieces) to propel the main character Laika throughout her journey.

This documentation of Robot Heart Stories is the result of ethnographic PhD research that looks at the cross-section of collaboration, storytelling and design thinking. The project was initiated by Reboot Stories' Lance Weiler and Janine Saunders.
http://www.robotheartstories.com
http://www.rebootstories.com
http://www.learndoshare.net

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Thanks to:
Lorie Marsh, Felicia Pride, and the Story Pirates for advise on experiential learning and story-driven lesson planning.

Robot Heat Stories is also part of the Transmedia Multiplatform Convergent Resource Kit.
http://www.tmcresourcekit.com/robot-heart-stories

reboot stories

CASE STUDY
Robot Heart Stories 1.0

An experiment in experiential learning through collaboration and purposeful storytelling.

Author: Ele Jansen
Based on participation, observation and conversations with 30+ team members.

Robot Heart Stories was created, designed and produced by Reboot Stories' Lance Weiler, Janine Saunders and Atley Loughridge. Collaborators from eight countries helped turning the project into a reality.

bridging reality and fiction

peer producing a purposeful story. an experiment.

A TWEET OF 140 characters marked the starting point of Robot Heart Stories, which was created, designed and produced by Reboot Stories' Lance Weiler, Janine Saunders and Atley Loughridge. Collaborators from eight countries helped turning the project into a reality. From June until October 2011 they produced an open story within an online collaboration. The purpose was to deliver a lose structure for 5th graders to step in and complete the story. A wider audience participated online.

ROBOT HEARTS STORIES was the first in a trilogy of co-creative stories that use collaboration and creative problem solving to explore and encourage experiential learning. The story framework yields a robot that crash lands in Montreal and has to travel to Los Angeles in order to return to her planet. 42 kids from two less privileged schools in Montreal and LA co-created the story in its details. As a first entry into the story they named the robot. They called her Laika because her parents had run into the first dog in space, called Laika, just before their robot baby was born. While teaching Laika about our environment on earth, the kids learned about sustainability, geography, math and creative writing. By creating images, videos and messages for Laika and the other class across the country, they trained their digital skills and literacy. The kids' imaginations determined the Robot's journey. Whatever destination the students dreamed up, the robot and a reporter team traveled there and took a photograph. After the robot reached LA, she boarded a high altitude balloon and headed into space, taking with her the students' stories and artwork. The space launch was meant for the kids to be reminded how far their imagination and creativity can carry them. Using multiple channels to both produce and disseminate the project makes Robot Heart Stories a multimodal example of 21st century narrative with a purpose to teach through storytelling and play.

out in the morning drizzle, laika found a frog who had been forgotten on the sidewalk. frog seemed so out of place sprawled out on the cold brick that laika spontaneously reached out and all of a sudden frog and laika were one! they made a new face and laika saw with new eyes. new thoughts guided laika to the shore, where frog swam away in her natural home. >>

The production scheme consists of overlapping segments. The core is the story frame itself, which serves as a grid for all parties involved. To illustrate the set up, teams can be structured in tiers of descending accountability:

1. TIER: CORE PRODUCERS & STRATEGIC PARTNERS
2. TIER: COLLABORATORS & 5TH GRADE STUDENTS
3. TIER: (A PARTICIPATING) AUDIENCE

STRATEGIC PARTNERS, SUCH as Fondation de Dr. Julien, Story Pirates, Nothern Army, Vectorface, and the Design Related network, contributed pro bono to facilitate this non-profit endeavour. On a second tier, skilled media producers, storytellers, teachers, designers, researchers, and artists volunteered to support Reboot Stories' main producers Lance Weiler and Janine Saunders.

THE TRILOGY IS embedded in a wider universe of think tanks and experiments aimed at rebooting stories on various levels.

- USE STORY, IMAGINATION, EXPERIENTIAL LEARNING TO REBOOT EDUCATION AND SOCIAL CONSCIOUSNESS
- ENGAGE COLLABORATORS TO CO-CREATE AN EMERGING NARRATIVE
- ENCOURAGE PLAYFUL INTERDISCIPLINARY AND INTERGENERATIONAL EXCHANGE TO PROTOTYPE FOR THE FUTURE

These sections are played out in different arenas, such as classrooms, web communities, and live meet-ups, combining online and offline co-creation within and outside the experiential storyworld.

>>"what just happened?" laika was frozen in tingly thought. she was laika but different. she saw with her own eyes, but they were influenced by frog's eyes. "what if i could become one with the ocean, too?">>

THE TRILOGY'S BIRTH moment was Techcrunch's Disrupt hackathon in May 2011. Lance and a small group of friends prototyped a participatory storytelling model that should:

- BE BOTH HYPER LOCAL AND GLOBAL,
- EXPLORE CO-CREATION UNDER THE PREMISE TO DESIGN 'WITH' NOT 'FOR',
- EXPLORE STORYTELLING AS A TOOL FOR INNOVATION AND RAPID PROTOTYPING,
- SIMPLIFY COLLABORATIVE STORYTELLING.

A few days after its ideation, the project started taking shape in a process of brainstorming, note taking, wireframing, and lengthy conversations.

PHASE 1: CORE TEAM & PARTNERS

This first production phase followed values of agile development and design thinking between the core team and strategic partners, such as agencies, educators and designers. A central part of the experiment was to deliver only a lose framework for a storyline and an outcome. The intended gaps were meant to be filled by students and collaborators.

PHASE 2: ENTER COLLABORATORS

The call to action went out late August 2011. 50+ creative entrepreneurs and skilled fans stepped into the production. This open collaboration happened largely online through different communication channels, such as basecamp, skype and google docs. On basecamp, tasks and areas were listed and collaborators took on as little or as much as they could. The project was broken into teams focusing on different core areas, such as production, education, storytelling, technology, and social media. The entire journey as well as it's documentation was facilitated by skilled fans: the story-driven curriculum, the website build and social media campaign, Laika's actual journey from Montreal to LA, the space launch, the classroom activities; all elements of the project were entirely produced by a team of collaborators.

PHASE 3: ENTER STUDENTS

The third production phase was when the experiment went live from October 17-28, 2011. At this time the students started being involved, filling the lose story creatively with their artworks, stories and educational tasks. The core team, strategic partners and collaborators were still actively involved in facilitating the project's infrastructure, distribution and documentation. The project had a crescendo at diy days LA.

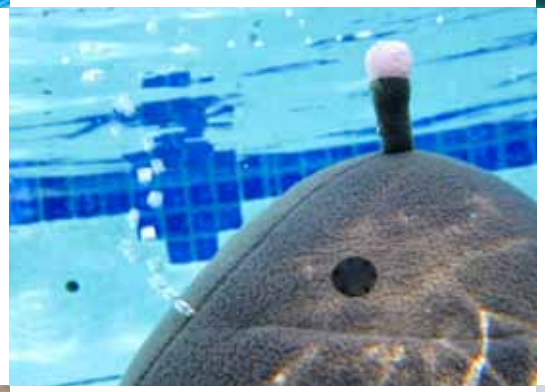
CORE TEAM AND PARTNERS

COLLABORATORS

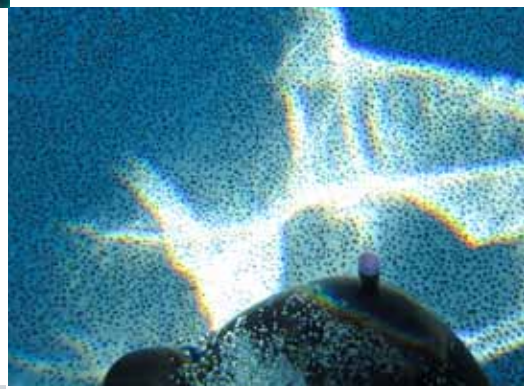
STUDENTS

may june july august september october

>>then laika realized a very great thing: she was one with the ocean and the frog and the children, and she always had been. laika existed because everything else did. no one could ever be alone.



this thought rose like a great ocean within her. she had no idea how long she stood with the water. it seemed like a blink of an eye, and when she continued on her jounrey, the ruby streaks of sunset reached out to her.



laika's third day on earth was just as transformational as the first two, but in a way utterly different from what she could have expected.>>

CO-CREATION
The open collaboration process was based on a model that spanned different communication channels, such as basecamp, skype and google docs. On basecamp, tasks were listed and collaborators took on as little or as much as they could. The project was broken into teams focusing on different core areas, such as production, education, storytelling, technology, and social media.

DISTRIBUTION
- Classrooms
- Social media
- Websites
- Press
- Participation

WEBSITES
- www.robotheartstories.com
- http://rebootstories.tumblr.com/
- http://robotsjourney.tumblr.com/

GOAL
Reboot education through experiential learning, empower imagination, creativity, can-do attitude and collaborative problem solving.

INTERESTED GROUPS
- Elementary education
- Higher Education
- Parenting
- After-school programs
- Science Education
- Math Education
- Creative Writing
- Media Literacy Advocates
- Digital technology experts

OTHER PLANETS IN THE UNIVERSE
- Conference: diy days www.diydays.com #diydays
- ThinkTank: Wicked Solutions https://wickedsolutions.wikispaces.com/
- Coming: further installments of trilogy
- Festival Du Nouveu Cinema (Montreal)

TECHNOLOGY USED
- iPads
- Pico Projectors, Microvision
- GPS plush toy
- Skype

AUDIENCE
Robot Heart Stories addresses school kids, educators, and parents (global, all ages); and aims at informing a wider audience including political and administrative decision makers to reboot education and show that experiential learning and co-creative storytelling can lead the way.

co-creating the story

step 1: core team comes up with a lose story framework
step 2: collaborators marry curriculum and story
step 3: students fill the blanks and bring laika to life

THEME, STORY, PROPS AND CHARACTER

Experimental co-creation was key to collectively evolve the story from a basic framework that consisted of an arc (robot reporting on Earth and humans) and a theme (fish out of water), from which a tale of morality unfolded. The robot's journey was the narrative backbone that bridged collaboration, story and curriculum. The narrative thread was Laika finding joy in what the kids are passionate about and then amplified that energy. The story's call was to 'share your passion to propel Laika and education forward'. A robot plush toy served as narrative prop to propel the story forward and create emotional connection. Over the 10-day period students engaged with each other creatively, used technology on a daily basis and prototyped solutions for Laika, thereby training problem solving and digital literacy.

The experience began when space-robot Laika landed in Montreal in order to learn about our planet and had to make her way to LA to return home. One classroom in LA and one multimedia workshop for children in Montreal used science, history, geography and creative writing to help Laika. On the go, the students interacted with her and each other across borders.

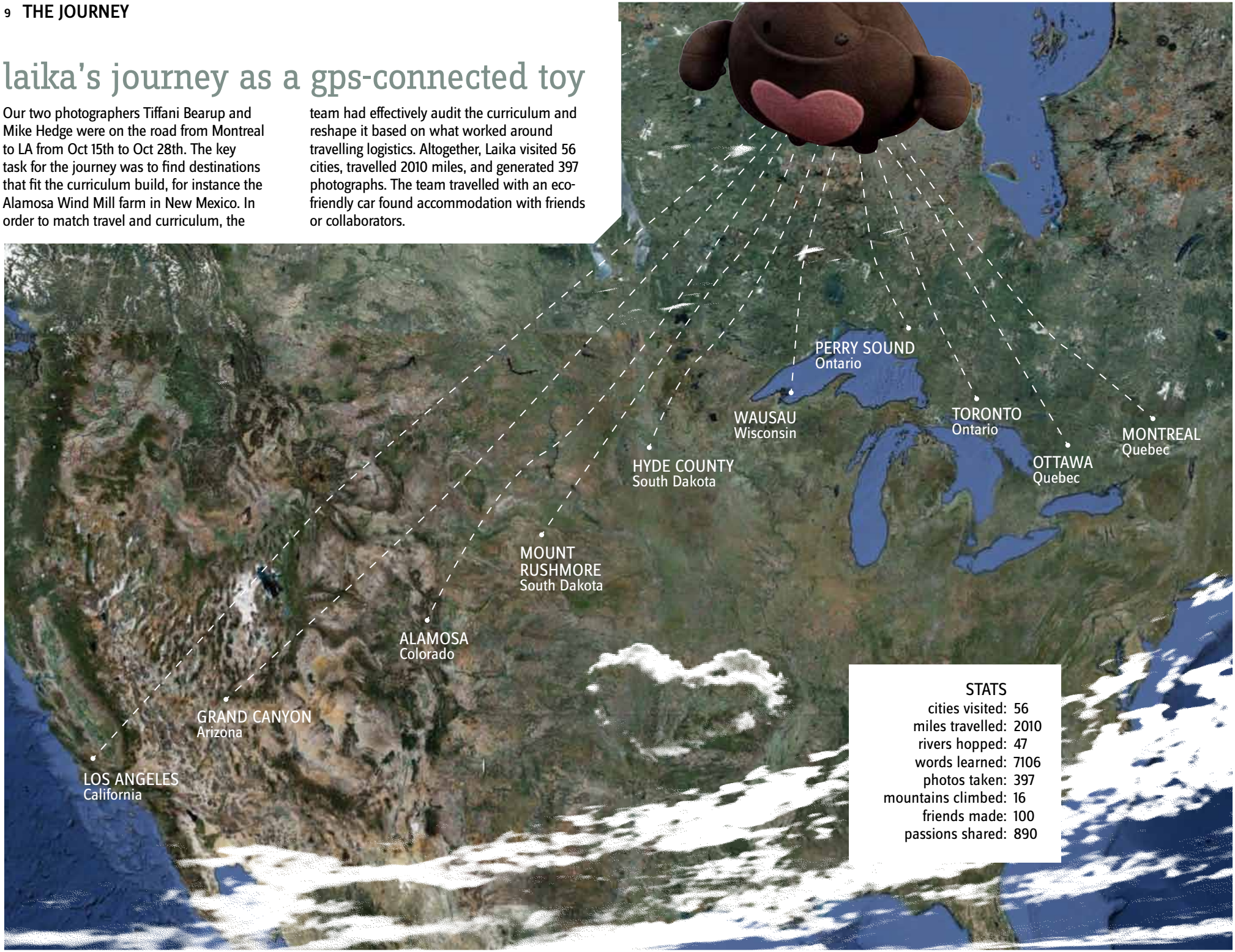
AS THE STUDENTS tracked the robot's progress, they encountered narrative problems, for instance, Laika's fuel unexpectedly depleted when she entered our atmosphere, and the kids came to realize that she's powered by passion and creativity. They learned that it's a mix of creativity (Montreal class) and science (Los Angeles) that will help the robot make her way back home.

Thus, the narrative worked in conjunction with the classes' curricula, touching geography, science and creative writing. The experiential narrative connected not only students in both classrooms but also supporters worldwide, who could take part in Laika's journey by creating and uploading 'heartpacks' that then increased Laika's signal strength. She grew stronger, fuelled by collective and individual passion, so she could make her way home.

The grand finale was Laika's journey back into space when she embarked a NASA space rocket (and a high altitude weather balloon equipped with a camera), carrying all the kids' creative works and passion with her, signifying to the kids how far their imagination can take them.

laika's journey as a gps-connected toy

Our two photographers Tiffani Bearup and Mike Hedge were on the road from Montreal to LA from Oct 15th to Oct 28th. The key task for the journey was to find destinations that fit the curriculum build, for instance the Alamosa Wind Mill farm in New Mexico. In order to match travel and curriculum, the team had effectively audit the curriculum and reshape it based on what worked around travelling logistics. Altogether, Laika visited 56 cities, travelled 2010 miles, and generated 397 photographs. The team travelled with an eco-friendly car found accommodation with friends or collaborators.



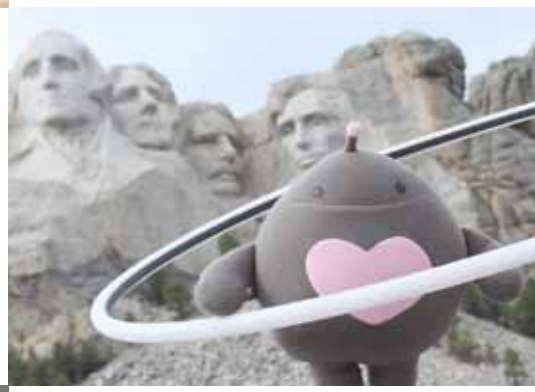
STATS

cities visited:	56
miles travelled:	2010
rivers hopped:	47
words learned:	7106
photos taken:	397
mountains climbed:	16
friends made:	100
passions shared:	890

>>everything is either a miracle or it's not. non-miracles are all the same, but all miracles are miraculous in their own way.

for a moment, she saw all times existing at once. morning fog hung over massive landmarks of the uninhabited desert that la once was as the children from the la classroom came to greet her. laika would carry their imaginations in her heart wherever she went.

laika listened. and then she really listened.



they were discussing energy and pushing though the atmosphere. all at once, laika realized that the children were developing a way to get her home! they had been thinking about her all along, but she hadn't heard them until now.>>

experiential learning

tinkering + story + tech = knowledge production

SEEING LEARNING AS a devotional and experiential practice is quite the contrary to the hegemonic Foucauldian discipline that includes examination, judgement, and surveillance (Foucault 1979/1980). A whole new generation of educators - such as John Seely-Brown, Sir Ken Robinson, and other tactile-kinesthetic kearning thinkers counter the pervasive nature of social discipline and point out that it possesses power to limit play, creativity, and divergent thinking. According to Robinson's longitudinal studies with kindergarten and school kids, creativity deteriorates through discipline and common school education.

In experiential education theory, learning is a result of producing knowledge by not only experiencing things but to make this an informed action. Core elements that are agreed on are notably 1) concrete experience, 2) observation and reflection, 3) the formation of abstract concepts and 4) testing in new situations. These four stages should be iterated in a continuous spiral.

STRUCTURATION OF A 1-hour session:

1) THE KIDS STARTED with a concrete experience ('do' aspect) with haptic elements that visualized Laika and her story. They would experience Laika through paintings, making heartpacks. Receiving a daily message with a question form Laika made the story tangible (15 min).

2) REFLECTIVE OBSERVATION CAME in at several points, be it through creative writing, discussion or interaction with the other class while reading about Laika's journey on her journeylog (which was edited by both classes). The kids would think about the question/ theme of the day, discuss and make notes on a whiteboard (30 min).

3) ABSTRACT CONCEPTUALISATION WAS included in dealing with knowledge and information that went into making lessons for Laika. The kids synthesized their results and designed the message, which was then communicated by mission control (15min).

4) THE EXPERIMENTATION AND planning phase was activated when students turned their message into short animated video clips, photos, or drawings to teach Laika about our planet (60 mins).

Each day provided new iteration of those four experiences, varied with different tasks, games, story elements and challenges.

Without going deeper into learning theory, Robot Heart Stories embraced these theoretic principles naturally, given that the same patterns underlie the iterative production philosophy around Lance's concept Story R&D. To effectively reach the students, Laika's story was based on learning styles that addressed Howard Gardner's Multiple Intelligences Theory, and Kinesthetic learning styles model. Each one of those is ideally addressed with a mix of media/tools. As a combination of technology and storytelling Robot Heart Stories was an experiment to cater for a diversity of kids' learning patterns. Core concerns were to create relevance and salience in experiential learning, to address cultural and societal differences and to develop an attitude to embrace failure for the sake of learning.

Robot Heart Stories wanted to show that storytelling can make education an immersive experience that supports learning effects by triggering emotions.
The experiment was designed to find a balance between collective and individual learning while using a student-centric approach and an adaptive story-driven curriculum. The idea was to deliver a loosely curated experience, in which students can enhance each other's learning. Ideally, while interacting, students learn from students in the same way they learn from their teacher. (More on role of teacher in next section.) Incentives were implemented through interactive game and play mechanics.

IN ORDER TO convey knowledge through interactive storytelling, the classes' 10-day curriculum weaves interest, information and interaction as well as technology into daily lesson plans.

These were:

- INTEREST: Laika, story, kids in other school
- INFORMATION: geography, sustainability, math, creative writing, digital literacy
- INTERACTION: co-creation among students in class and students abroad by using props and technology

INTEREST

Outside the classrooms, the story/curriculum designers had different aspects to consider in order to ensure smooth creative sessions for kids and teachers. One main conceptual focus lay on what kids love, what's really interesting for them. A robot proved to be a great decision as teachers observed a shift of energy in 'all too often bored students' when they were presented with Laika. This shift occurred in attitude, and was motivational as well as transformational for the students' learning graph. Due to ever more diversified entertainment, building a relationship with kids and finding the right interest pockets becomes increasingly difficult. There is no more unified TV program that all kids watch, so they might have completely different liking. In order to address each student individually it's a balance between finding a theme that is abstract enough to reach a diverse group, yet specific enough to make it easy for them to identify with it. The students experienced Laika's story as an opportunity to think about humanity and life on earth. It was a way to observe society through the eyes of a friendly curious alien.

INFORMATION

The lesson plan included information and activities around food, energy, housing, space, geography, science, arts and math. (email laika@rebootstories.com to get a copy of the lesson plan.) Here are a few examples of what the kids came up with:

1) 'WE HAVE BEEN informed that the noise and waste caused by the utilisation of our energies have been putting your mission at risk. To help you achieve your mission, we are trying to design a machine that could clean these energy wastes and at the same time suggest new alternative energies.

Here is a sketch of the machine we have been thinking about and we are trying to develop: The Recycled Seasonal Wastes Cleaning Machine.
The machine would be made of wood, and would run with seasonal alternative and natural recycled energies, meaning the dead leaves in Fall, the snow in Winter, the dry grass in Summer, faded flowers and animal and human feces in Spring.'

2) 'POLLUTION IS...
...a bad example for you.

...noxious and foul fumes, toxic gases coming from the factories, the cars, the buildings, cowpats (which contains methane), etc.

...something unintentionallly created by men, that is ejected by the factories where they produce the elements and materials necessary for survival.

...the greenhouse gases leading to global warming.

Facing pollution...
...we are scared to die, that all the plants and animals would die too, and that it would hurt our lungs and affect our food.

...we are scared that it would destroy the 'sky column', and the ozone layer, which is like a huge shield protecting our planet from the Sun's rays, so the heat would destroy Earth and melt our houses down.

...we are scared that it would hurt the people that will follow us on Earth.

...we hope that God, or the gods like Poseidon would help to repair the ozone layer with his trident magic wand'.

3) 'THE ESSENTIAL ELEMENTS in order to survive on Earth.

I couldn't live without...
- food, sleep, smiling
- education and learn to communicate
- feeling good in my own skin (in the case of Laika in her own metal)
- love and friends
- videogames
- getting some exercise otherwise i would get fat and explode

THE SHELTER THE team is suggesting for Laika 'The Living Source Factory' (Portable)
The portable factory would run with solar energy, it would be fully equipped in order to be a real shelter to Laika. The factory would produce every necessary energies and would contain a telescope for Laika to be able to observe her home from the Earth. The place would produce smiles, love, food and would provide an education program to help Laika to learn how to communicate.'

INTERACTION

Students, teachers and classes interacted among each other and between Montreal and LA as well as between students and Laika. Media were used as a tool to support the learning process and develop interactive media competence. In order to make learning more emotional, and thus more effective, the curriculum included creative tasks and games that addressed all senses.

Laika's story served as a tool with multiple entry points, so kids could have several overlaps addressing several senses. They created a music video for Laika, drew, wrote stories and listened to messages from the other team and Laika. In interactive workshops, teachers used visuals and music, debates, quiz shows, and games to encourage attentive participation. Kids were free to talk loudly and feel comfortable, be themselves, let them talk about themselves, touching and doing. A lot of focus was put on students using their hands to create.

LA school kids had an extra physical treat as one of the Story Pirates actors came into class regularly, acting as a mad scientist, teaching about sustainability in relation to Laika and her journey.

At the beginning of each class, there were different ice-breakers. Teachers encouraged students to try something new, again and again, so stepping out of their comfort zone becomes a habit that helps throughout life to embrace change, new challenges and be creative beyond limits. Daily iterations of practical experiences built confidence.

Laika herself, and various obstacles that were built into the story served as ice-breakers for each new session. Activity tasks that made kids get up and move and share were additionally used to motivate creativity. With these experiences they would learn that they make the future come into existence by 'doing' things.

ACTIVITIES

- NAMING LAIKA: MONTREAL class researched the history of space travel, and made up a micro-narrative that the robot's parents had met the first dog in space, named Laika, while they were pregnant with their little robot and then called her Laika. This created a sense of belonging for the kids to be a part of the story. They experienced a sense of co-authorship and the thrill of making a significant contribution.
- CREATE VIDEOS ABOUT Laika and the messages they wanted to send to her
- CREATE HEARTPACKS TO increase Laika's fuel
- CREATE SONGS AND letters to Laika (kids communicate between classrooms and to wider audience via letters on the mission blog)
- PROTOTYPE SOLUTIONS TO get Laika home
- TAKE FOOTAGE FOR 'making of'
- Determine next destination for Laika's journey to LA
- FOLLOW GEO-LOCATION diary of robot: Laika broadcasted its position and kids send robot to next destination
- STORY PIRATES CREATED 9-10 days of video intros for the LA class to watch each day. This was another effort to lay out the narrative for the kids, for them to understand how they might help Laika.
- CALL AND RESPONSE (C&R) between Montreal and LA faced problems due to time difference and matching class attendance. For time lag C&R there wasn't enough time. The calls to action the kids did have were laid out in the Teachers Guide, and supplemented by daily emails as the Robot.

>>standing at the wind etched ripples of sand, laika saw how the grains moved in tandem to form one pattern and then another. the clouds in the sky were never the same. laika realized that there was only this moment.

as her shadow grew, she breathed the open air and giddiness rose in her heart. she imagined her inner self expanding as far as her eye could see. sweet signals danced on the horizon... messages from the students! the channels crisscrossed above her head, forming quilted thoughtways in the sky.>>

her body zealously moved to the music of the children's chatter, making imprints in the sand. she traveled, but did not know where. she felt, but did not know why. how did it happen that she and the students came to share these brief moments on earth?

co-designing a curriculum-driven story

narrative, game and education came together in a specifically designed curriculum. it was developed in three steps and focused on playful experiential learning.

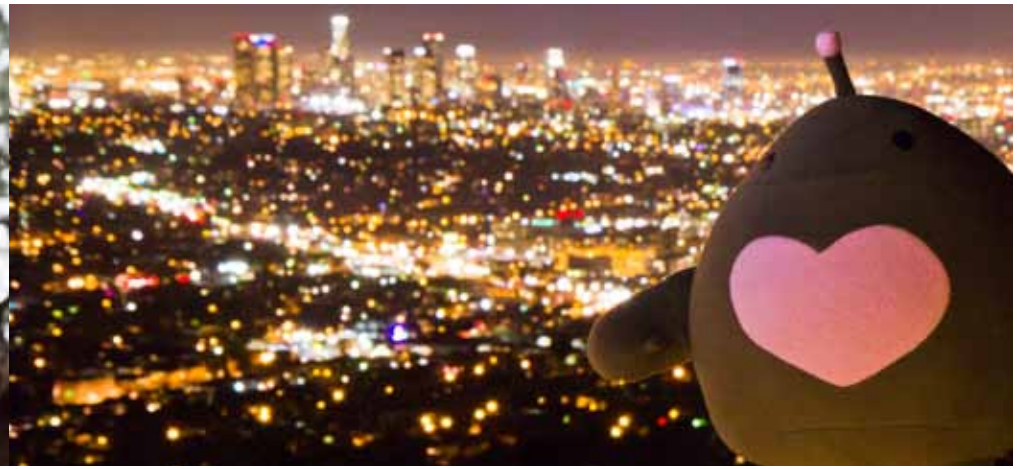
FIRST, LANCE AND Janine had worked out a sketch of the Robot's narrative, anticipating a more 'live' collaborative story-building experience with the classrooms. Then the Story Pirates designed a curriculum that was opened to collaborators to comment and enhance.
At the same time, the Story Pirates worked with Dennis, the LA elementary teacher, and it became evident that a more directive narrative structure was necessary to ensure that Dennis would be able to cover his required curriculum: science topics including the scientific method, traditional fuel sources, alternative fuel sources, and sustainable energy technologies. These requirements led to dividing both classes' foci, hence, the LA kids studied fuel resources while Montreal could study human passion.

TO INTEGRATE BOTH sides and tell a story over a period of ten days required a story that features a problem, a hurdle, another hurdle, a moment of despair, and a resolution. So, the curriculum had a narrative arch that included all that. At this stage one of the collaborators, Lorie Marsh, took initiative and reshaped the curriculum to fit both classes' agenda as well as the basic story arc.
Given the nature of LA's science topics, Lorie framed the purpose of the Robot's mission to accommodate them, as well as the Montreal group's more expressive topics: to study how humans fuel themselves – literally and metaphorically. By adopting this mission for the Robot, the team was able to 'marry' the two teams' divergent curriculum requirements.

ONCE THE CURRICULUM requirements and the order they were to be covered were set, the team nailed down the specifics of Laika's journey between Montreal and Los Angeles (eyeing especially locations that would feature examples of alternative energy). Lorie further set the narrative 'beats' to be covered day by day on her live 10-day journey. By doing so, the beats could guide the photography team to capture images for each day that would support the day's story and theme. This also enabled Lorie – as an interface between schools, teachers, and creative team – to anticipate the emails that she'd write to the classes each morning, as the voice of the Robot, as well as lay out the daily task suggestions and cross-group communication opportunities in the Teachers Guide. The moderating team also created a means for the students to track the Robot's daily activities, as well as upload their daily contributions to her mission: thus, an Online Journey Log as the Robot's daily mission log was conceived on the go.

IN THIS PARTICULAR case, the two classrooms had different curricula and themes due to LA having more restrictions on in-class teaching and including the school's curriculum. Montreal was quite the opposite scheduling RHS in after school classes, which allowed them to play and create more freely. As a consequence, Montreal focused more on art and communication while LA focused on sustainability and energy.

- Montreal thus served as the communication hub, primarily focusing on media literacy and the arts, constructing strategies to communicate with the Robot and teach her about humans behaviour and passion.
- LA studied alternative energy sources and analysed basic requirements for life on earth. This knowledge assisted the Robot in travelling and leaving our planet in a sustainable way.
- LA students receive problems and questions from the Robot from Montreal and figure out how to solve those problems.
- Design based on STEM (science, technology, engineering, math) plus arts = STEAM.

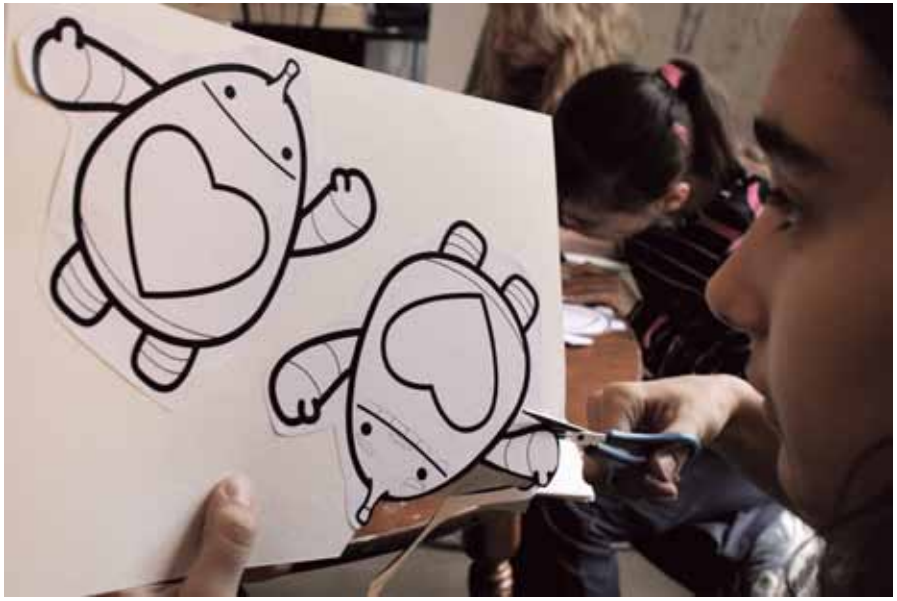


role of teacher as mentor-facilitator

learning to be a self-propelled creative thinker and doer requires a safe zone to test and tinker with buddies and a teacher that acts like a mentor.

TEACHING ENGAGES ALL senses, one's entire personality, patience, empathy, a good judgement, and also creativity and clear communication of knowledge and tasks. Experiential learning requires a teacher, who is affable, playful, creative, caring and collaborative. Being a mentor and facilitator, who feels comfortable to swap roles with students, gives students as sense of agency and responsibility, encourages self-confidence, creativity and helps building trust.

To facilitate experiential learning around technology, it's paramount for the teacher to be digitally literate. One of the most challenging parts of the project, according to some teachers, were technical requirements, such as handling tablets, using skype and uploading data to the blog. Uncertainty in handling tech led to time loss, but also showed that materials should include micro steps, such as creating and exchanging skype handles before class.



groundwork

developing ip and infrastructure

- Story development (see Genesis)
- Games (see Experiential Learning)
- Website/Map, Northern Army: Plan for 2,5 months to develop Site features, ideation, wireframes, user flow, story and design integration (wrapping story elements into design and user flow), developing a tweaking feature sets, launching splash page, messaging and site copy to support the story and user experience, de-bugging, QC/QA audit.
- Graphic design style and brand, creating heartpacks
- Blogs
- GPS Plush Toy made by Monster Factory, Toronto
- Heartpacks etc. (attach sample material)

contracts

Northern Army as well as the journey-photographers Mike and Tiffani were given work-for-hire contracts, which specified that Robot Heart Stories owns all content created by the company/individual. In return, the artists' work would be promoted through the project's publicity and reach, for example, the photographers' work was featured in Wired Magazine as a result.
Workbook Project's COO was responsible for working out these agreements with all parties.
Robot Heart Stories 1.0 was not under a creative commons license, although certain assets are available under CC such as the curriculum, documentation, and styleguide.

core team

- Creator / Experience Designer: Lance Weiler
- Creative Producer: Janine Saunders, Creative producer / writer: Atley Loughridge
- Partners: Northern Army, Vectorface, Story Pirates, Festival du Nouveau Cinema Fondation du Dr. Julien, P'tits Loups, Design Related, diy days
- Lead Design and Art Direction: Northern Army, Rene Antune, Ryan Anderson
- Site Developer: Vectorface, Matt McParland, Eric Coulombe

funding

Robot Heart Stories was a bootstrapped project that was largely carried by the voluntary input of a creative community with an open source ethos, so members came forth and helped without any monetary compensation. As the project was produced as a rapid prototype, it moved too fast for funding cycles. The base level costs of USD 23,000 were covered by the Workbook Project and USD 2,165 fan funding (crowdsourcing through IndieGogo).

- IndieGogo campaign didn't reach target of USD 15,000
- Application with Tribeca New Media Fund (declined in 2011, granted in 2012).


i hear and i forget. i see and i remember. i do and i understand - Confucius

the collaborators

The collaborators' block was a living storytelling engine consisting of volunteers from eight different countries that brought to life different aspects of the story. They delivered the lose framework of the curriculum-driven story that was to be enriched and continued by the kids. Opening an innovative project is a risk that goes beyond user-centric design by asking participants to not only test but to create the product while it is released.. Even though Robot Heart Stories was deliberately designed to be simple, it turned out to be complex, especially with respect to incalculable quality and dedication of voluntary creative talent, varying levels of understanding and digital literacy of all co-creators while spanning time zones and languages. Balancing such a fragmented team can be complicated and requires new forms of collaborative methods. This case study delivers a rough outline of the production model. The dynamics and mechanics of open collaboration are discussed in more depth on page 32.

briefing

A briefing on the project, its goals, nature and tasks was organized with all collaborators six weeks before Laika's journey started.

internal comms

Most of the communication was through 37signal's basecamp collaboration software. Most used methods of communication:

- basecamp for collaborators
- internal basecamp for core team
- email
- skype

collaborators and their roles

- 50+ educators, filmmakers, storytellers, designers, and researchers from the US, Canada, Germany, Spain, France, UK, Sweden, and Australia, 10-15 of which were core contributors
- Photographers on the road aka Laika: Mike Hedge, Tiffani Bearup
- Curriculum Development: Story Pirates, Quinton Johnson, Lorie Marsh
- LA / Story Pirates Producers: Duke Doyle, Jamie Salka, Connor White
- LA Teacher / School: Dennis Hagen-Smith
- Montreal Partners: Festival Du Nouveau Cinema, Fondation du Dr. Julien, P'tits Loups
- Montreal Coordinating Producer: Jasmine Pisapia
- Montreal Teacher / Artistic Trainer: Daphnee Cyr
- Production + Story Producer: Lorie Marsh
- Story Development + Writers: Atley Loughridge, Elena Parker, Lance Weiler
- Associate Producers: Elena Parker, Adipat Virdi, Mike Hedge, Marc Ruppel, Ele Jansen, Yo Park, Julie Stratton
- Site for illustrators and Coordination: Design Related, Matt Sung
- Bloggers: Jason Hood, Felicia Pride
- Translation Producer: Karine Halpern
- Translators: Lea Pisapia, Karine Halpern, Fabienne Olivier
- Social Media: Jen Begeal
- Teaser Video: Jordan Gray
- Project Documentation Team: Ele Jansen, Cynthia Jabar, Maya Zuckerman, Adipat Virdi, Sai Pathmanathan
- Support: MicroVision, Laura Fleming, Mathias Erixon, Jenny Nasal, Lorraine Hopping Egan, Bethan Marlow, Evelyn Saunders, Bruno Patatas, Fernando Carrion, Emmanuel Bethoux, Celina Beach, Jasmine Lyman, Paul Burke, David Pope, Anthea Foyer, Meryl Alper.

The project could become something of a model for education... exposing the participants to critical thinking skills and structured creativity that the students will need to be successful. - *Wired*

Can launching a robot into space spark students to think creatively? - *Good Magazine*

Imaginative and groundbreaking. - *Henry Jenkins*

"Tim Kring, creator of "Heroes" and "Touch" will motivating to storytellers like me. - *Wired Magazine*

Learning Experiment Sparks Student Imagination With Cute Robot. - *Mashable*

It's not a real robot, of course, but a cute little plush toy with a really big heart and a GPS chip to track her progress. - *Discovery News*

One of the most engaging aspects of the project was its lyricism and randomness. There are haunting photos of Laika suspended over desert sands, visiting the Alamosa Solar Project, leaping over a gas pump, and swimming in Parry Sound.

Robot Heart Stories combines all the qualities of what I call "social benefit storytelling." The combination of creative narrative with noble ambitions is exactly the kind of groundbreaking transmedia that is inspiring and motivating to storytellers like me.

circulation

TWITTER

- Outreach – Send tweets with projects aims & action points to outlined target areas

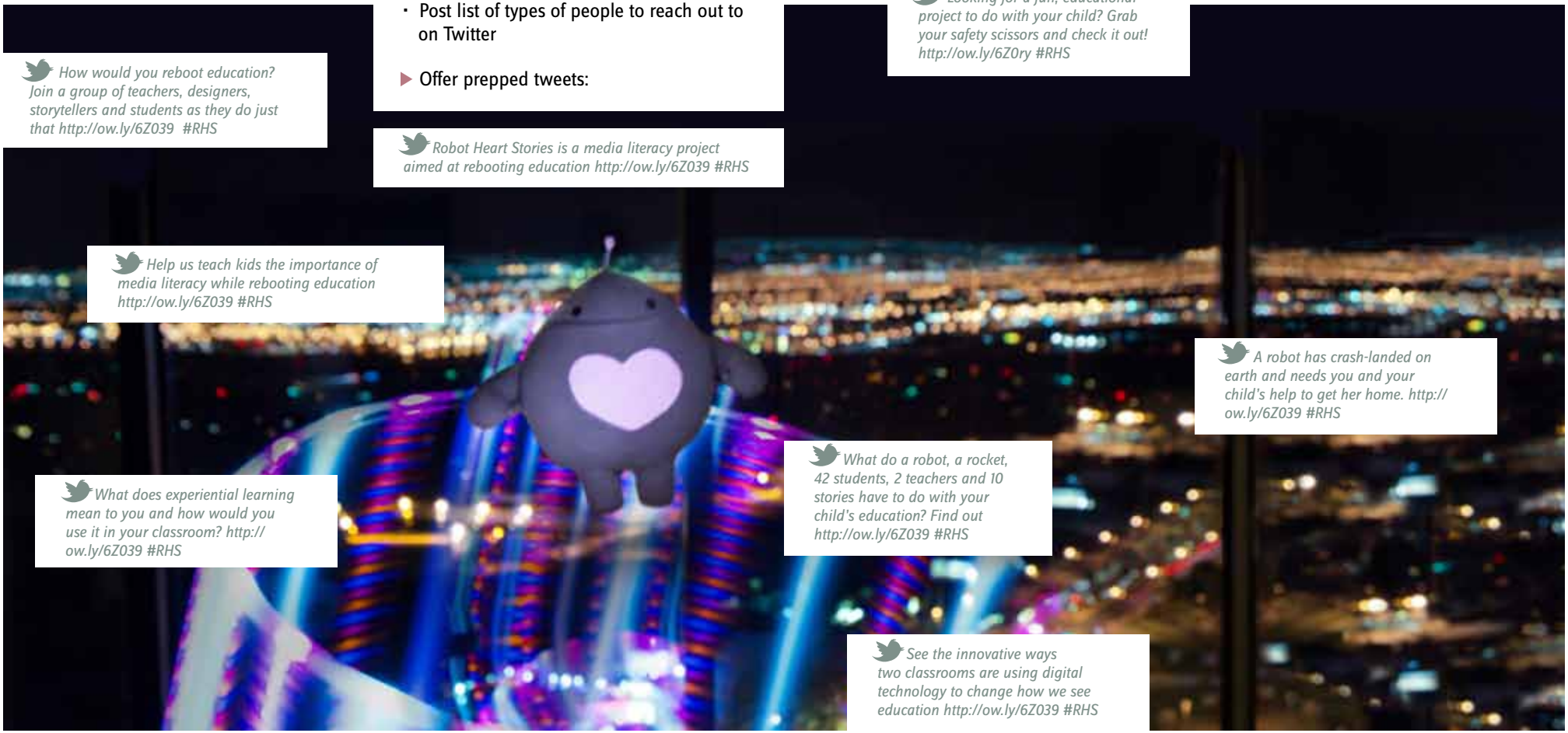
- Outreach
  - Send message to collaborators and bloggers
  - Post tweets on basecamp for everyone to use
  - Post list of types of people to reach out to on Twitter

- Offer prepped tweets:

How would you reboot education? Join a group of teachers, designers, storytellers and students as they do just that http://ow.ly/6Z039 #RHS

Robot Heart Stories is a media literacy project aimed at rebooting education http://ow.ly/6Z039 #RHS

Looking for a fun, educational project to do with your child? Grab your safety scissors and check it out! http://ow.ly/6Z0ry #RHS



Help us teach kids the importance of media literacy while rebooting education http://ow.ly/6Z039 #RHS

A robot has crash-landed on earth and needs you and your child's help to get her home. http://ow.ly/6Z039 #RHS

What does experiential learning mean to you and how would you use it in your classroom? http://ow.ly/6Z039 #RHS

What do a robot, a rocket, 42 students, 2 teachers and 10 stories have to do with your child's education? Find out http://ow.ly/6Z039 #RHS

See the innovative ways two classrooms are using digital technology to change how we see education http://ow.ly/6Z039 #RHS

press

Indie GoGo PR team worked with us to reach out to a number of different publications. From that outreach Good Magazine, and Discovery News reported.
Through own contacts, a piece was published in ARGN.net and republished in DECODED on Wired.com.

Overall Lance and Janine gave three interviews before the project launched: USA Today, Good Magazine, and Discovery News. Furthermore, Lance spoke at a variety of conference leading up to the launch, as well as conferences after the launch that helped out coverage. Janine spoke at the Festival du Nouveau Cinema which got RHS notice in the French community, as well as do an interview at diy days LA.

The core team created a press release that was translated into different languages and pushed out in six different countries (US, Canada, UK, France, Sweden, Germany). A press lead was supposed to collect some more outlets from other collaborators and reach out to contacts from the Workbook Project.

COVERAGE:

- GOOD MAGAZINE: http://www.good.is/post/can-launching-a-robot-into-space-spark-students-to-think-creatively/
- Discovery News: http://news.discovery.com/space/robot-heart-stories-111017.html
- JOAN GANZ COONEY CENTER: http://www.joanganzcooneycenter.org/Cooney-Center-Blog-182.html
- ARGNET: http://www.argn.com/2011/12/robot_heart_stories_sends_kids_on_cross-country_trek_fueled_by_imagination/
- TRIBECA: http://www.tribecafilm.com/tribecaonline/future-of-film/Putting-The-Mass-Back-In-Media.html
- WIRED: http://www.wired.com/magazine/2011/12/plush-robot-takes-a-trip-fueled-by-students-imagination/
- Discovery Channel
- USA TODAY
- SFX MAGAZINE
- Offer from German public broadcaster WDR and public radio Deutschlandfunk to cover story once it has an iteration in a German school.

curriculum

The curriculum was developed between several collaborators on basecamp. At the same time, Story Pirates worked out a curriculum that fitted the LA school requirements. These turned out not to match the story well. As the story line turned out to be less flexible than expected, progress to marry story and curriculum stalled. Lorie Marsh, an experienced educator and storyteller, came in and offered help when, coincidentally, Lance and Janine asked collaborators to sign up for Associate Producer positions and take on more tasks and responsibilities. This moment turned out to be a crucial turning point to resume all lose ends and fit story and curriculum to both schools' requirements. Lorie collaborated directly with 6-8 other educators in LA and Montreal, which made some of the less coordinated efforts done by others on basecamp obsolete.

translation

The bilingual aspect of the project evolved during its production. For the kids it was exciting to experience the communication barrier, trying to mutually understand each other in different ways. Three translators based in France volunteered to set up a system to translate curricula and emails on a daily basis. This included instructions, updates, lesson plans, etc.

NAME of outlet:

CONTACT NAME at outlet:

CONTACT INFO: (email, phone etc.)

REASON YOU THINK THE OUTLET WOULD BE A GOOD FIT?

CAN YOU HELP WITH FOLLOW UP IF NEEDED?
☐ three interviews before and during project
☐ two interviews after project ended

satellites

LAURA FLEMING

Another external project was realised by Laura Fleming, a librarian at an elementary school in New Jersey. She held RHS activities in the library with a number of different students. Her biggest success story was working with a group of autistic students to pick out their favorite books and create heartpacks for each book, photograph them, and send the photos to the RHS site. Laura said that the students were so excited about the project and for the first time ever, all of them checked out the books from the library. She also reported that students were coming up to her and asking if they could make heartpacks for the robot.

QR GUERILLA

A QR code was generated designed into a Laika-poster and distributed to all collaborators, some of which used them for urban interventions, most notably in London, Brussels, Berlin, Cologne, Amsterdam and Copenhagen.

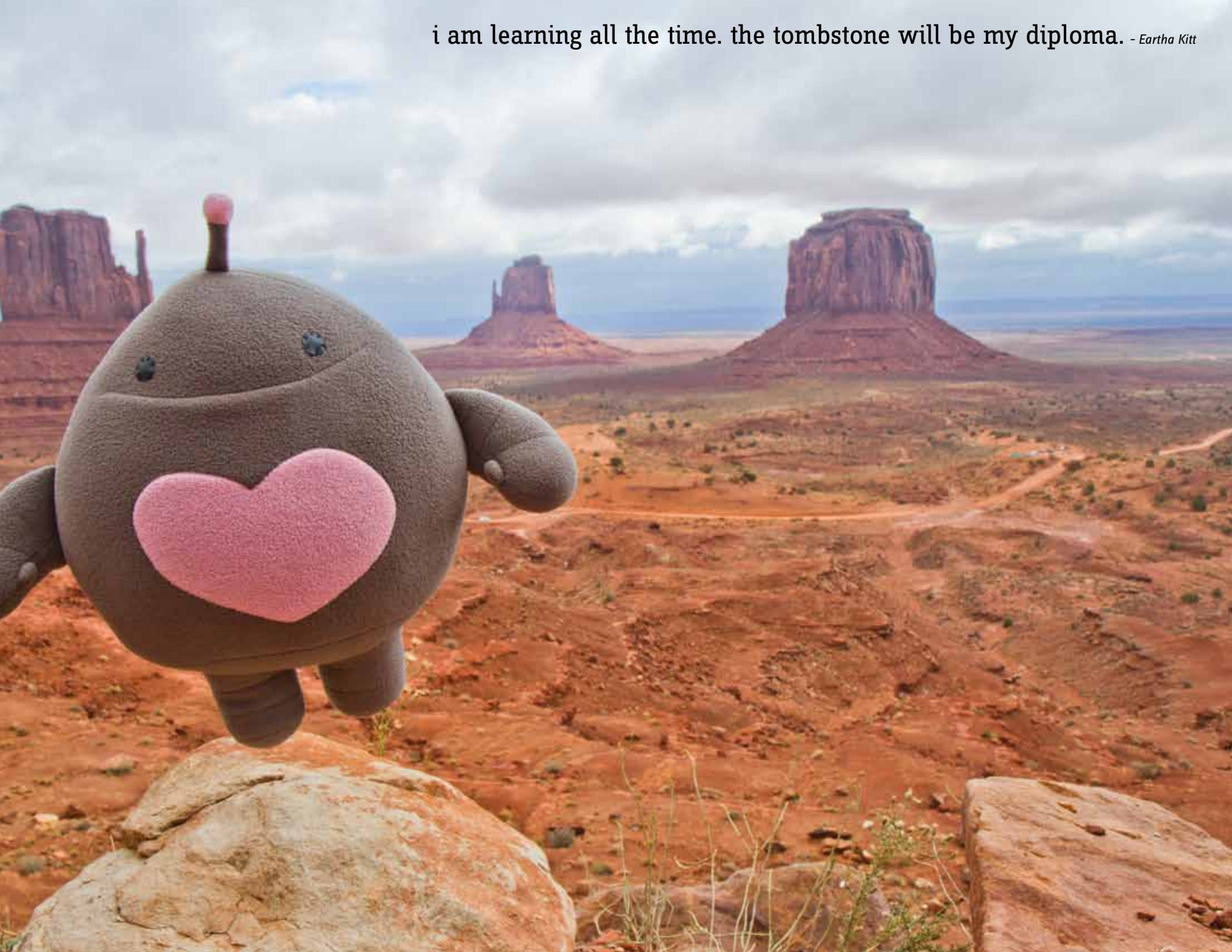
web content curation

Before the sites were launched, collaborators signed up for content curation, flatpack testing, or telling stories about the robot's destination. These were meant to be easy tasks that can be shared via social networking sites in order to spread the word.

Anyone who found content related to experiential learning was encouraged to post articles and links to shared blogs. How did this work out?

- Journey log features Laika's progress, discoveries and learnings including the student's creations: http://robotsjourney.tumblr.com/
- Reboot education blog informs about aims and intentions of project and experiential education: http://rebootstories.tumblr.com/

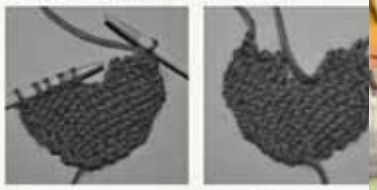
i am learning all the time. the tombstone will be my diploma. - *Eartha Kitt*



the partici pating audience

- Participants of all ages are invited to share their own passion by printing, customizing and uploading their creation of a robot heartpack that then fuels Laika's journey home.
- Jasmine Lyman, an artist/story architect from Gothenburg in Sweden, created a knitted version of the robot-heartpack and uploaded the pattern to the site for others to copy and remix.
- Collaborators use their networks and outlets for promotion

On next row bind off all stitches and pull the thread trough the last. Cut the thread. Do the same with the other 5 stitches.



Sew heart and arms onto the body. Sew in all remaining threads.

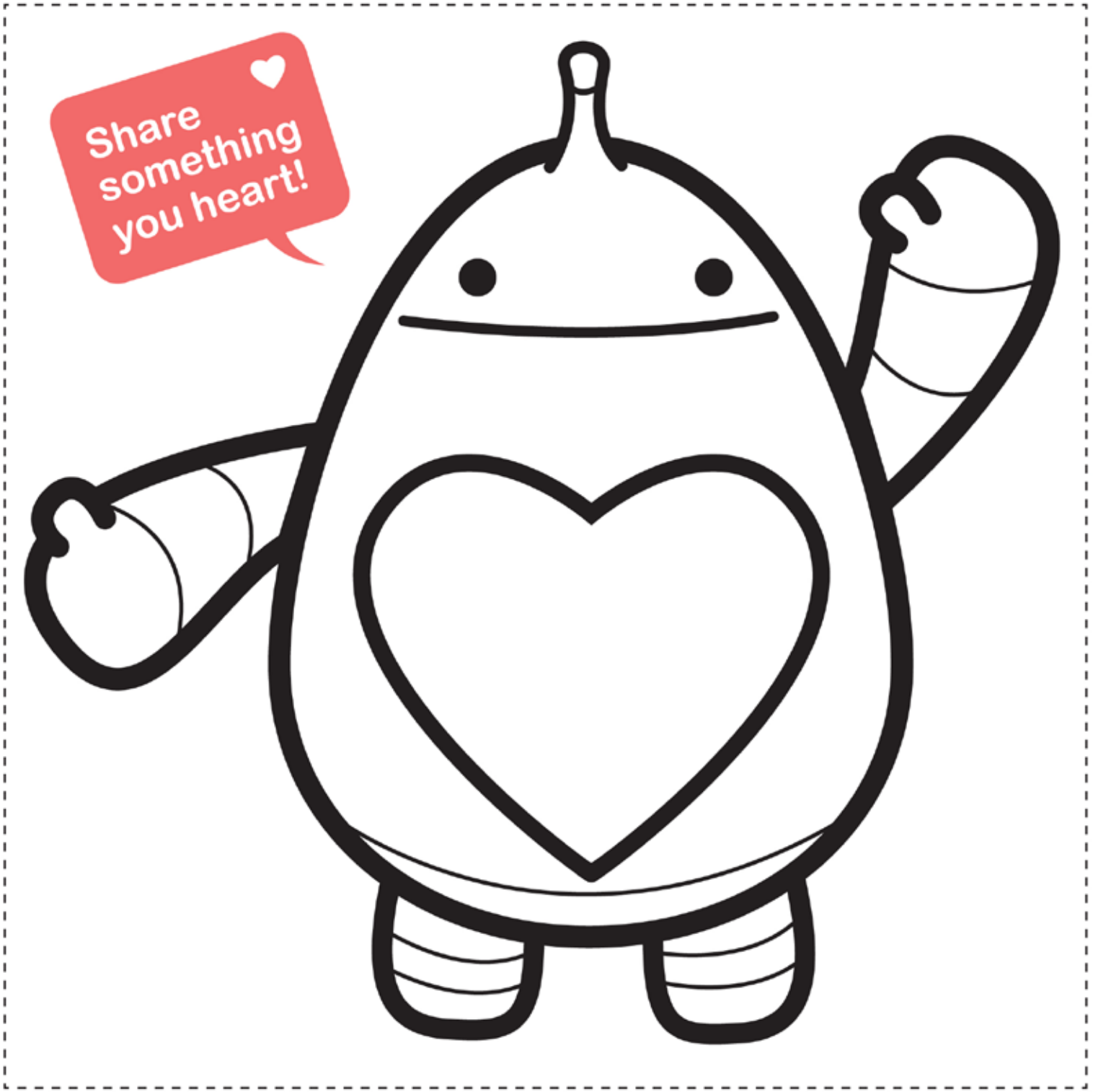
Sew on eyes, mouth and heart screws.

>>in the morning before the teacher came in, laika tried to express to the children how she'd come to study earth's life systems, but that now heart stirrings overcame her in waves... the children sprang to life with chatter about how pollution was killing the earth systems. one little girl whispered, "we are scared to die, that all the plants and animals would die too, and that it would destroy the ozone layer so the heat would melt our houses down." laika couldn't imagine what could cause this destruction! the children shouted, "people! people hurt earth without noticing!" this thought was so twisted and weird to laika that she had to go for a walk.>>

Instructions:

- Write your passion or something you LOVE on the robot or inside her heart.
- Color & customize the robot.
- Write your name and age (optional).
- Upload your creation to robotheartstories.com!

Cut out the square!



ROBOT STORIES

Heartpack!

You'll need...

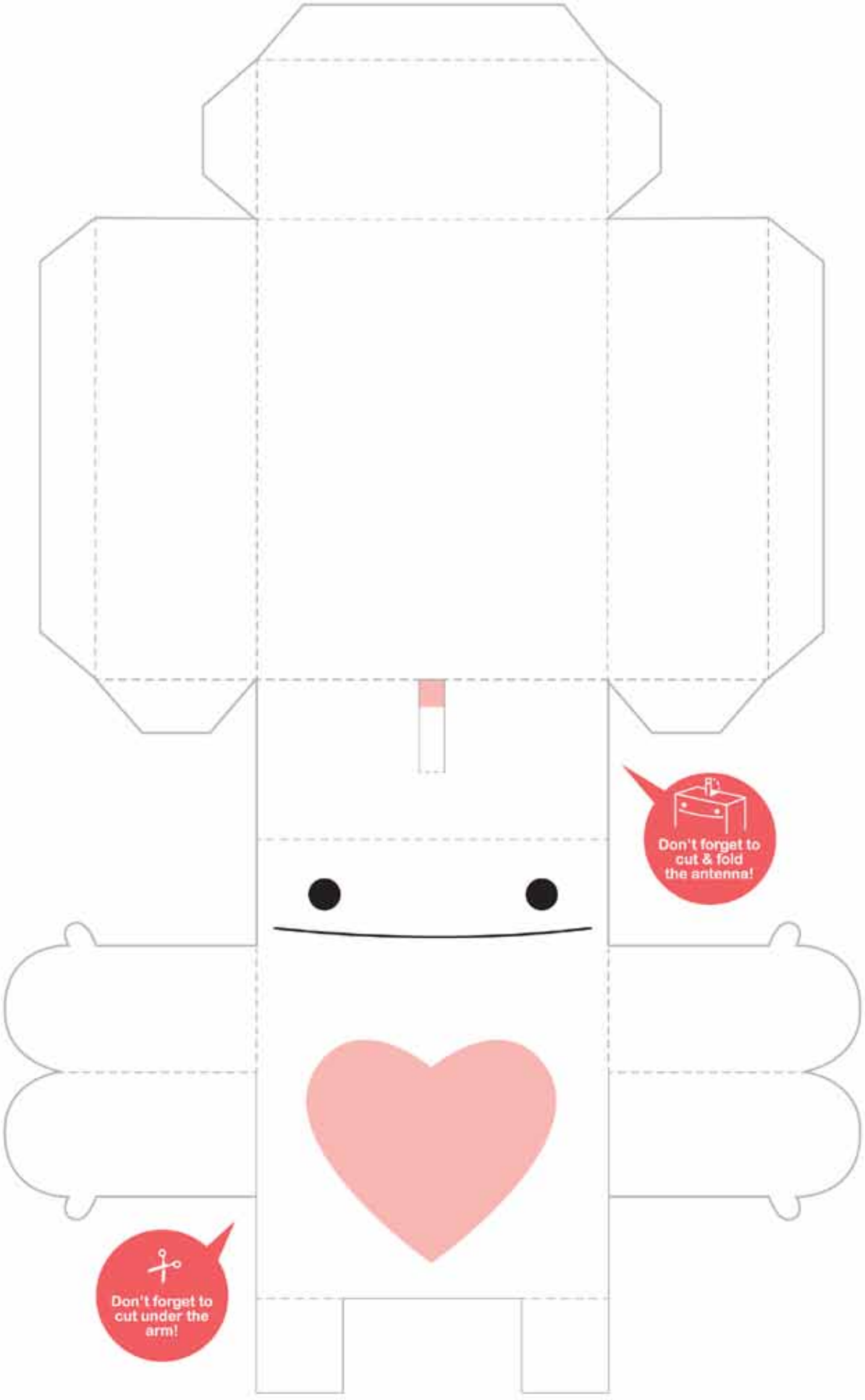
OR

AND

OR

Cut Solid Lines!

Score & Fold on dotted lines!



We highly recommend using thick paper for maximum robo-sturdiness!

storytelling experiments

online collaborators grouped locally to spin off a robot heart story locally.
this was meant to be an ice-breaker for contributors and was a way for people to extend the project in the ethos of creative commons.

CALL AND RESPONSE

This project was designed as a small experiment inspired by Robot Heart Stories to give students a chance to communicate across geographical and age boundaries. Created by teacher Bethan Marlow, young students from Evelyn Saunders' Australian class had a chance to ask teenage students in Wales questions that one "can't ask their teacher." The older kids on the other side of the world recorded their answers, with the help of some Heartpacks, giving them a chance to act as mentors to younger kids.

IT WAS AN experiment to see how much scope there is for mentoring and peer leaderships in education between children and young people. The idea was to acknowledge that children look up to teenagers and that teenagers thrive on being heard and looked up to. It's also a chance to gain more trust in your teacher and to encourage you to open up if you need to talk.

Here's in more detail how Bethan Marlow and Evelyn Saunders organized it:

1. The class/group make a large robot. He's introduced as the new kid in the class and they gave her a name and colour her in. We could, of course, encourage them to make a replica of the main character in 'Robot heart stories'. Having the teacher as the voice of the robot is important because a) all questions are anonymous and b) the teacher sounds like the cool robot and might help children open up to the teachers too.

2. CHILDREN (from 5 to 11) think of questions that they can't ask their teacher. It could be anything- from questions about home life, life skills or sexuality all the way to basic maths and spelling that they can't ask their teacher because they're supposed to know the answers. These questions are all placed in the large robot.

3. ALL THE QUESTIONS will be taken out of the robot and the class films the robot asking all the questions. They do this by getting the teacher to ask all the questions and the children to move the robot like she is talking. They then upload the questions and alert their teenage group that the video is ready.

4. THE YOUNG PEOPLE then build their own robots (with their own funky, unique personalities) and film the robot as they answer the question. They could be as creative as they like- filming in various locations, giving the robot a certain voice, finding a way of making it move in a great way. They don't always have to be serious answers, the important thing is that it's led by the young people (this is the experiment- to see what answers they actually give) and

that there is no right and wrong just honest, personal answers (something that teachers can never give).

5. THE YOUNG PEOPLE make a mash-up of both videos (linking the question with the answer) and then upload it so that it can benefit other young people and encourage more children to ask questions and more young people to answer.

THE KIDS LEARNED about Laika by showing them the website and the video, and some of the photographs. They created flat packs and heart packs. There were 23 questions asked, not all were answered. Here's a link to the video Evelyn Saunders made with her class: http://rebootstories.tumblr.com/post/13081995121/cant-ask-teacher-call-and-response

>>when laika arrived in la, she felt that she'd been there before. whether it was in a dream or her imaginings of what her arrival would be, she knew this was exactly the place and time she should be just as she was. but the sensation was not that her journey had ended, rather that she had just now realized its endlessness, and this was that beginning.

la mission control emitted a celebratory signal to montreal and the two classrooms unveiled the mechanical creation that would help laika travel home.

the machine was not yet complete, so laika could test it out while the machine helped her train for her long journey home. the testing and training could inform each other.

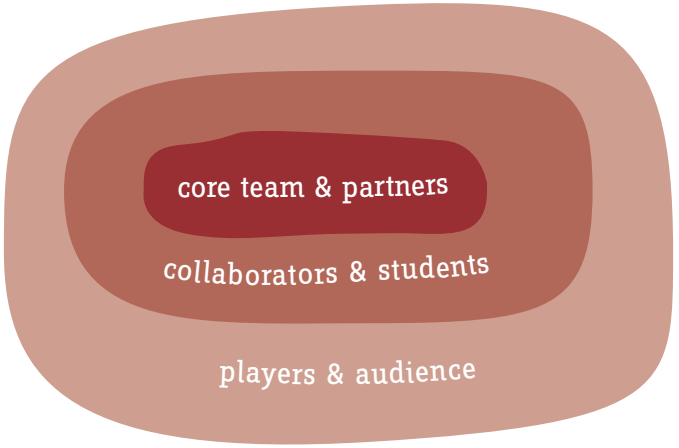
the montreal students embedded core values that the la children developed into technology. laika asked, "who inspired this?" the students chimed in, "you!!" but laika hadn't felt like she'd done anything at all....

laika took one step towards the creation and then another. as she neared, she focused her passion on the future. at first contact, she had a vision of lifting high above the la lights with waves of gratitude washing all earth's people in stardust.>>


it is not the answer that enlightens, but the question.
- Eugène Ionesco

make teams work

since rhs was bootstrapped and not-for-profit, the call for collaborators was vital to make the project happen. this means this case of open co-creation was unpaid and partly self-organized to the extent that individuals choose their roles, the degree to which they contribute, and the duration of their involvement. this setup creates a different social accountability and power dynamics than paid gigs.



These results and recommendations are preliminary takeaways from an ongoing evaluation between Lance, the Reboot Stories team and Ele's PhD research.

Although it needs still more evaluation to say what inspires people to create (confidence), share (intellectual property) and trust (ethics), this project lead to first sketches of mechanisms that can help balancing the transient and unaccountable nature of collaboration.

Contingency multiplies in open environments. They require an agile operation system that allows continuous re-planning of activities. Robot Heart Stories has proven that open creation can lead to a desired outcome at a certain point in time, although producers chose their role, the degree to which they contribute, and the duration and timing of their involvement. Refining the process we found the following basic elements helpful to play well together.

BRIEFING
This project was a prime example that we are wired to our habits and traditional management systems. A briefing should address the intention to break with traditions in order to innovate, and remind self-propelled initiative. Our ethnography also showed that a co-creative process should leave room for ideating, evaluating, and social commentary equally. Every participant should be aware that the system is meant to be used flexibly but responsibly.

COLLABORATIVE LEADERSHIP
Design thinking provides excellent methods for efficient and effective ideation and decision making within groups. The Stanford Design School (d.school), U.Lab at the University of Technology in Sydney and MindLab in Copenhagen are good references. Other participatory movements approach group management based on existing meeting protocols, such as Robert's Rules of Order, Citrine's ABC of Chairmanship, the Westminster System or open space methods. (cf. Fiorella de Cindio, RCM Milan)

TASK RELAY
Volunteering and rapid prototyping seem like a mad mismatch. The project's goal was in jeopardy when people weren't accountable for the tasks they signed up for. It was remarkable to see others jumping in where help was needed. To ensure accountability, we imagine a simple task relay system on the work-for-hire model similar to Amazon's Mechanical Turk combined with an open design methodology that is currently tested in Reboot Stories' Wish for The Future Open Design Challenges as well as within the Story Design Lab at Columbia University, NYC. The concept is a combination of design science, game mechanics and participatory storytelling.

COLLABORATIVE FILTERS
Applying collaborative filters varies greatly, depending on circumstance and type of relationship among contributors. One approach is to first look at skills and knowledge in terms of T-shaped qualities. The top bar of the T represents a broad range of skills in various valuable fields (think random stuff). The vertical bar stands for depth of knowledge in one particular area. The model combines the assets of a generalist and a specialist in one type. Because like-mindedness strengthens lose groups, we started asking for a manifesto with some test groups. We're interested in the participants' five core beliefs. Once onboard participants will be encouraged to bring in their own creative ideas and an entrepreneurial attitude. Reboot Stories tries to find ways to provide the knowledge, tools and resources needed to step in, and to give agency to everyone, driven by their own passion.

INCOMPLETE FRAMEWORKS
The proposition is that if we dare to be imperfect and leave gaps, we see participants take action much quicker. It helps overcoming inhibitions, gives a sense of ownership and creates a feeling of belonging. Robot Heart Stories provided these gaps in both story and production. Depending on their motivation, accountability and the overall fit of their contribution to the project, collaborators quickly became central players to shape the story (see. concentric circles).

CONCENTRIC CIRCLES
Lance speaks of collaboration as concentric circles that spread from the inside out: you start in small group ideation, which leads to the next phase or ring that is marked by a checkpoint where people take ownership of some part and become a keeper of it. >>

>> The idea can stem from everybody's imagination but someone has to make sure that it stays true to the original idea and concepts. This person can push the boundaries so the idea becomes stronger. The closer to the core, the more ownership and accountability is developed and expected among collaborators. Some outlying areas are more open, less accountable and. These also have access to less synchronous communication, although most resources are still freely shared with all to enable everybody to step up.

GROUPS:
- Creative board
- Core production team/partners
- Collaborators/learners
- Players/audience

SECTIONS:
- production
- experience
- education
- storytelling
- technology
- community

ASSOCIATE ROLES:
- Community Ambassador
- Collaborator Ambassador
- Story manager
- Partnership manager
- Events coordinator
- UX Manager
- Tech project manager
- Educational/Curriculum Lead
- Language producer
- Social Media/PR Manager
- Social Media/Interactive
- Educational board to review all content before released
- collaboration engine manager
- style manager (unity of language, aesthetics, and outlets)
- logistics manager
- expectations manager ;)

Since Robot Heart Stories will continue in a second iteration, these findings flow into future projects. In addition to rapid prototyping on Robot Heart Stroies 1.0, our efforts to build a transferrable infrastructure are a slow prototyping for a human-centered system that embodies the contributors' values to spur social innovation with a robust engine that includes a pattern language in combination with interactive management software.

The second iteration of Robot Heart Stories was funded by the Tribeca New Media Fund 2012 and will launch in 2013 as Laika's Adventure.

If you're interested in using some of our materials, we can send you the lesson plan, collaborator briefing, and the project timeline as word documents. You can reach us at laika@rebootstories.com.

literature

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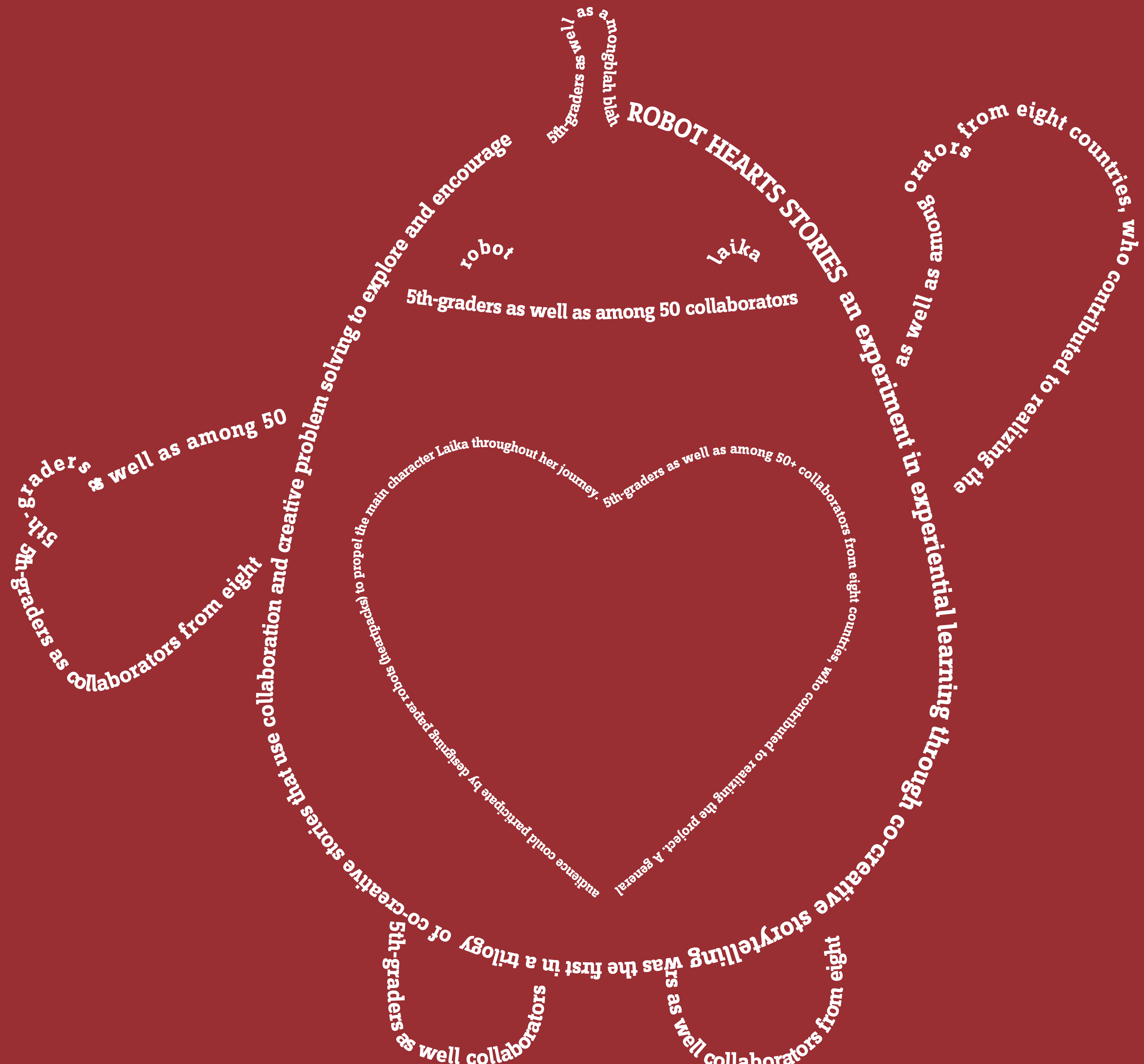

If you like Robot Heart Stories check out the second part of the trilogy www.wishforthefuture.com. The sequel of Laika's journey will kick off in 2013 as 'Laika's Adventure,' when she will travel the world as a connected toy, inspiring creativity and social action.

Reboot Stories LLC. harnesses storytelling, technology and design science to form an innovation engine for digital literacy, cross-generational learning and social change. Its offline destination - Diy days (www.Diydays.com) - follows the premise to learn, do and share. Online we capture the practice of purposeful storytelling on www.learndoshare.net.

reboot stories